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Attorney Docket # 5095-50RCE

Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Joachim SCHÖNBECK et al.
Serial No.: 09/171,735
Filed: October 23, 1998
For: Process for Manufacturing Hot Rolled Steel Strips

Examiner: Wilkins III, H.D.
Group Art: 1742

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Name of applicant, assignee or Registered Representative

Alfred W. Froebrich
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APPEAL BRIEF

SIR:

This is an appeal, pursuant to 37 C.F.R. §1.192(a) from the decision of the Examiner in the above-identified application, as set forth in the Final Office Action wherein the Examiner finally rejected appellant's claims. The rejected claims are reproduced in the Appendix A attached hereto. A Notice of Appeal was filed on June 25, 2003. This Appeal Brief is being submitted in triplicate.

The fee of $330.00 for filing an Appeal Brief pursuant to 37 C.F.R. §1.17(f) is submitted herewith. Appellants requests a two-month Extension of Time of the original shortened statutory response period to file this Appeal Brief. A Petition for the two-month extension of time is

enclosed herewith along with the fee of $420. Any additional fees or charges in connection with this application may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

REAL PARTY IN INTEREST

The assignee, Mannesmann AG, of applicants, Joachim Schönbeck, Herbert Quambusch, and Hans Hoppmann, is the real party of interest in the above-identified U.S. Patent Application.

RELATED APPEALS AND INTERFERENCES

There are no other appeals and/or interferences related to the above-identified application at the present time.

STATUS OF CLAIMS

Claims 1-5 and 9-11 have been cancelled. Claims 6-8 and 12-13 have been rejected. Claims 6-8 and 12-13 are on appeal.

STATUS OF AMENDMENTS

There have been no Amendments filed subsequent to the Final Office Action.

SUMMARY OF THE INVENTION

Appellant's invention is directed to a process for producing hot-rolled steel strip from a continuously cast precursor strip. A complete casting sequence from a continuous casting plant is rolled through a first deformation stage having at least one roll stand in which the

continuous precursor strip is produced (see page 2, lines 23-26, and page 3, lines 7-10). The precursor strip is rolled through the first deformation stage to form a continuous intermediate strip which is coiled without cutting to form an intermediate coil having an intermediate coil weight comprising at least 40 tons (the entire contents of the complete casting sequence) (see page 2, lines 23, through page 3, line 3, of the specification). The continuous intermediate strip is then uncoiled from the intermediate coil and rolled through a second deformation stage having at least one roll stand to form a finished strip (page 3, lines 3-4). At the output of the second deformation stage, the finished hot strip is severed into sections having a desired finished coil weight to form a plurality of finished coil strips. The metallurgical characteristics of the continuous intermediate strip are changed to meet desired values by temperature control of the intermediate strip prior to coiling and/or speed control of the intermediate strip during the step of rolling the continuous intermediate strip through the second deformation stage (page 3, lines 23-26).

ISSUES

1. Whether claims 6-8 and 12-13 are patentable under 35 U.S.C. §103 over JP 59-092103 (Nitou)?

GROUPING OF CLAIMS

The pending claims are, of which claim 6 is independent. The claims are grouped as follows:

Group I -- claims 6-8, 12, and 13, which stand or fall together.

ARGUMENT

GROUP I (CLAIMS 6-8 AND 12-13)

Nitou discloses a hot strip rolling method in which a continuously cast slab is passed through a pre-stage rolling mill and a post-stage rolling mill. In the intermediate stage between the pre-stage rolling mill and the post-stage rolling mill, the intermediate product is rolled up in an edge up state (see page 3, lines 20-23, of the translation of Nitou). The coil is then uncoiled an passed through the post-stage rolling mill and cut into required length by shears 4B (see page 4, lines 7-8).

Independent claim 6 discloses "receiving at a first deformation stage having at least one roll stand, the continuous precursor strip of a complete casting sequence directly from a continuous casting plant in which the continuous precursor strip is produced" and "rolling the continuous intermediate strip without subjecting said continuous intermediate strip to any cutting to form an intermediate coil having an intermediate coil weight comprising at least 40 tons". Accordingly, the present invention requires that the intermediate coil receives a continuous precursor strip of a complete casting sequence.

As stated in the MPEP §2142, three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Nitou fails to teach or suggest that the intermediate coil receives a complete casting sequence of a precursor

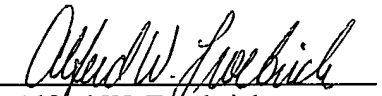
strip. Rather, Nitou discloses that non-continuous rolling achieves the same effects as continuous rolling (see page 3, lines 12-14). Figs. 1 and 2 of Nitou also show multiple intermediate coils thereby indicating non-continuous rolling. Accordingly, appellant respectfully submits that Nitou fails to teach or suggest that an intermediate coil is formed from a continuous precursor strip of a complete casting sequence, as recited in independent claim 6.

For the foregoing reasons, it is respectfully submitted that the combined teachings of fail to establish a *prima facie* case of obviousness with regard to the subject matter recited in claims. The Final Rejection of the claims in Group I should be reversed.

CONCLUSION

For the foregoing reasons, it is respectfully submitted that appellant's appellants' claims are not rendered obvious anticipated by and are, therefore, patentable over the art of record, and the Examiner's rejections should be reversed.

Respectfully submitted,
COHEN, PONTANI, LIEBERMAN & PAVANE

By 

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APPENDIX

1.-5. (canceled)

6. (previously presented) A process for producing hot-rolled steel strip from a continuously cast precursor strip, comprising the steps of:

receiving at a first deformation stage having at least one roll stand, the continuous precursor strip of a complete casting sequence directly from a continuous casting plant in which the continuous precursor strip is produced;

rolling the continuous intermediate strip without subjecting said continuous intermediate strip to any cutting to form an intermediate coil having an intermediate coil weight comprising at least 40 tons;

uncoiling the continuous intermediate strip from the intermediate coil to supply a second deformation stage having at least one roll stand;

rolling the continuous intermediate strip through the second deformation stage to form a finished strip;

producing a plurality of finished coils from the finished strip by coiling the finished strip and severing the finished strip into sections having a desired finished coil weight after said step of rolling the continuous intermediate strip through the second deformation stage; and

changing the metallurgical characteristics of the continuous intermediate strip by temperature control prior to said step of coiling the continuous intermediate strip and speed control of said continuous intermediate strip through the second deformation stage.

7. (previously presented) The process of claim 6, wherein said step of coiling the continuous intermediate strip comprises coiling the intermediate strip using a mandrel.

8. (previously presented) The process of claim 6, wherein said step of coiling the continuous intermediate strip comprises coiling the intermediate strip without using a mandrel.

9.-11 (canceled)

12. (previously presented) The process of claim 6, further comprising the step of changing the geometrical characteristics of the finished strip by adjusting rolling parameters during said step of rolling the intermediate strip through the second deformation stage.

13. (previously presented) The process of claim 6, further comprising the step of protecting the edges of the intermediate strip form cooling during said step of coiling the intermediate strip.